

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
28 April 2005 (28.04.2005)

PCT

(10) International Publication Number
WO 2005/037499 A2

(51) International Patent Classification⁷: **B26D**
(21) International Application Number:
PCT/US2004/034200
(22) International Filing Date: 14 October 2004 (14.10.2004)
(25) Filing Language: English
(26) Publication Language: English
(30) Priority Data:
60/510,815 14 October 2003 (14.10.2003) US

(71) Applicant (for all designated States except US): **MAN-
CHESTER TOOL COMPANY** [US/US]; 5142 Manches-
ter Road, Akron, OH 44319 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **NICHOLAS, Roger**
[US/US]; 282 Winston Road, Akron, OH 44313 (US).

(74) Agent: **HLAVKA, John, R.**; Watts Hoffmann Co., L.P.A.,
P.O. Box 99839, Cleveland, OH 44199-0839 (US).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished
upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: **METAL CUTTING TOOL**

(57) Abstract: A cutting tool assembly including a tool holder having a removable clamp. A cutting insert support blade member is removably held in the tool holder by the clamp. The cutting insert support blade includes at least one, preferably two, insert receiving pockets. The pockets are defined by a body portion and a clamp portion joined together by an integrally formed resilient or deformable portion which permits slight resilient movement between the clamping and body portions to facilitate the installation of a cutting insert in a pocket. When the insert support blade is mounted in the tool holder, the clamp inserts clamping forces to the clamping portion of the insert support blade which serves to secure the insert support blade to the tool holder and to exert clamping forces on an insert held in the pocket. The integrally formed resilient/deformable portion includes a plurality of slots, some of which open into an aperture spaced from a pocket. The slots enable resilient movement between the clamping and body portions.

WO 2005/037499 A2